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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/528,999

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Ryuji Kitaura

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EXAMINER

PATEL, KANJIBHAI B

ART UNIT

PAPER NUMBER

2624

NOTIFICATION DATE

DELIVERY MODE

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ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/528,999	<b>Applicant(s)</b> KITAURA ET AL.	
	<b>Examiner</b> Kanji Patel	<b>Art Unit</b> 2624	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 17 March 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13,27-37,44,45,48-51 and 55-60 is/are pending in the application.
- 4a) Of the above claim(s) 14-36,38-43,46,47 and 52-54 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27-37 is/are allowed.
- 6) ☒ Claim(s) 1,8,10,13,44,45,48-51 and 55-60 is/are rejected.
- 7) ☒ Claim(s) 2-7,9,11 and 12 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/24/05, 3/11/08, 5/27/08, 12/12/08, 3/5/09</u> .             | 6) <input type="checkbox"/> Other: _____                          |



**DETAILED ACTION**

***Election/Restrictions***

1. Applicant's election without traverse of Species II (claims 1-13, 27-37, 44-45, 48-51 and 55-60) in the reply filed on 03/17/2009 is acknowledged.

***Priority***

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

***Information Disclosure Statement***

3. The information disclosure statements (IDS) submitted on 03/24/2005, 3/11/2008, 5/27/2008, 12/12/2008 and 3/5/2009 are being considered by the examiner.

***Drawings***

4. Drawings filed 03/24/2005 have been approved by the examiner.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claim 10** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

**Claim 10** recites the limitation "said first threshold" in line 2. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

Art Unit: 2624

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 8, 10, 13, 44-45, 48-51 and 55-60** are rejected under 35 USC 102(b) as being anticipated by Osaka et al. (US 6,023,277).

**For claims 1 and 44**, Osaka et al. discloses a 3-D image display unit (Figures 1-14, 36) for displaying a 3-D image configured by a plurality of images, including:

an input part (in Figures 8, 36 controllers 9, 1001) for inputting control information (column 1, lines 5-12) required to display said 3-D image;

wherein said control information includes information that denotes the 3-D intensity of said 3-D image (column 27 line 58 to column 28 line 6).

**For claim 8**, Osaka et al. disclose the 3-D image display unit according to claim 1; wherein said unit further includes an input part for inputting an external signal that includes a request signal for switching display between 3-D image display and 2-D image display (Figure 14);

wherein said unit selects either of said 3-D image display or forming a 2-D image from said 3-D image to display said formed 2-D image instead of said 3-D image according to said request signal (Figure 14).

**For claim 10**, Osaka et al. disclose the 3-D image display unit according to claim 1; wherein said first threshold value (step S63 in Figure 14) is included in said control information.

**For claim 13**, Osaka et al. disclose a 3-D image display unit for displaying a 3-D image configured by a plurality of images 9(Figures 1-14, 30-31), including:

an input part for inputting control information (column 1, lines 5-12) required to display said 3-D image; and a display control part for controlling display of said 3-D image (Figure 8, screen controller 9);

wherein said display control part forms a 2-D image from said 3-D image according to a predetermined first condition (Figure 14, steps S63, 64, 67), displays said formed 2-D image instead of said 3-D image, and displays said 3-D image instead of said 2-D image according to a predetermined second condition (column 28 line 46 to column 29 line 9).

**For claim 45**, Osaka et al. disclose a 3-D image transmitting method for transmitting a 3-D image configured by a plurality of images (at least Figures 1-14), including:

a step of transmitting control ( column 27 line 58 to column 28 line 6) information required to control display of said 3-D image;

wherein said control information includes a threshold value related to an accumulative value that increases together with a 3-D display time (column 28 line 49 to column 29 line 9).

**For claim 48**, Osaka et al. disclose a 3-D image transmitting method for transmitting a 3-D image configured by a plurality of images (Figures 1-14), including:

a recording step of recording control information ( column 27 line 58 to column 28 line 6) required to control display of said 3-D image;

wherein said control information includes information that can take at least two values (Figure 14, steps S63, S64); and

wherein said display information denotes that a 3-D image (Figure 14, step S65) is displayed as a 2-D image (Figure 14, step S66) in the case where said information takes a first value (Figure 14, step S67) and a 3-D image is displayed as a 2-D image or 3-D image in the case where said information takes a second value.

**For claim 49**, Osaka et al. disclose the 3-D image transmitting method according to claim 48; wherein said control information includes information for denoting which of said plurality of images is to be used to form a display image in the case where a 3-D image is displayed as a 2-D image (Figure 14, step S67).

**For claim 50**, Osaka et al. disclose a 3-D image display unit for displaying a 3-D image configured by a plurality of images (Figures 1-14), including:

an input part for inputting control information required to display said 3-D image (Figure 8, screen controller 9);

wherein said control information includes display information that can take at least two values (Figure 14, steps S63, S64); and

wherein said display information denotes that a 3-D image is displayed as a 2-D image in the case where said information takes a first value and a 3-D image is displayed as a 2-D image or 3-D image in the case where said information takes a second value (Figure 14).

**For claim 51**, Osaka et al. disclose the 3-D image display unit according to claim 50; wherein said control information includes information for denoting which of

said plurality of images is to be used to form a display image in the case where said 3-D image is displayed as a 2-D image (Figure 14; Figure 30).

**For claim 55**, Osaka et al. disclose a 3-D image transmitting method for transmitting a 3-D image configured by a plurality of images (Figures 1-14), including:

a recording step of recording control information (column 1, lines 5-12) required to control display of said 3-D image;

wherein said control information includes a threshold value related to an accumulative value that increases together with a 3-D display time (Figures 14, 30-31; column 28 line 46 to column 29 line 9);

wherein said threshold value, when it is a predetermined value, denotes that a 3-D image is displayed as a 2-D image (Figure 30, option 35); and

wherein said threshold value, when it is not said predetermined value, denotes that a 3-D image is displayed as either a 2-D image or 3-D image (Figure 14).

**For claim 56**, disclose a 3-D image transmitting method for transmitting a 3-D image configured by a plurality of images (Figures 1-14, 30-31), including:

a recording step of recording control information (column 1, lines 5-12) required to control display of said 3-D image;

wherein said control information includes a threshold value required to control display of said 3-D image (Figures 14, 30-31) ;

wherein said threshold value, when it is a predetermined value, denotes that a 3-D image is displayed as a 2-D image (Figure 14); and



wherein said threshold value, when it is not said predetermined value, denotes that a 3-D image is displayed as either a 2-D image or 3-D image (Figures 14, 30-31; column 28 line 46 to column 29 line 9).

**For claim 57**, Osaka et al. disclose the 3-D image transmitting method according to claim 55;

wherein said predetermined value is 0 (column 28, line 65).

**For claim 58**, Osaka et al. disclose a 3-D image display unit for displaying a 3-D image configured by a plurality of images (Figures 1-14, 30-31), including:

an input part for inputting control information (column 1, lines 5-12) required to display said 3-D image;

wherein said control information includes a threshold value related to an accumulative value that increases together with a 3-D display time (column 27 line 58 to column 28 line 6);

wherein said threshold value, when it is a predetermined value, denotes that a 3-D image is displayed as a 2-D image (Figures 14, 30-31); and

wherein said threshold value, when it is not said predetermined value, denotes that a 3-D image is displayed as either a 2-D image or 3-D image (Figures 14, 30-31).

**For claim 59**, Osaka et al. disclose a 3-D image display unit for displaying a 3-D image configured by a plurality of images (Figures 14, 30-31), including:

an input part for inputting control information (column 1, lines 5-12) required to display said 3-D image;

wherein said control information includes a threshold value required to control 3-D image display (Figures 14, 30-31);

wherein said threshold value, when it is a predetermined value, denotes that a 3-D image is displayed as a 2-D image (Figures 14, 30-31); and

wherein said threshold value, when it is not said predetermined value, denotes that a 3-D image is displayed as either a 2-D image or (Figures 14, 30-31) 3-D image.

**For claim 60**, Osaka et al. disclose the 3-D image display unit according to claim 58; wherein said predetermined value is 0 (column 28, line 65).

**7. Claims 1 and 44** are rejected under 35 USC 102(b) as being anticipated by Favalora (US 5,936,767).

**For claims 1 and 44**, Favalora discloses a 3-D image display unit (Figure 1, block 10) for displaying a 3-D image (at least at column 1, lines 9-12) configured by a plurality of images, including:

an input part (controller 16 in Figure 1) for inputting control information required to display said 3-D image;

wherein said control information includes information that denotes the 3-D intensity of said 3-D image (column 1 line 65 to column 2 line 12).

***Allowable Subject Matter***

**8.** The following is a statement of reasons for the indication of allowable subject matter:

**Claims 2-7, 9 and 11-12** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art on record fails to teach or fairly suggest, singly or in combination, that “ calculation part calculates an accumulative intensity value that increases together with a time according to said 3-D intensity while said display control part, when said accumulative intensity is over a first threshold value, makes a predetermined display operation” as recited in claim 2.

**Claims 27-37** are allowed.

#### **Other prior art cited**

**9.** The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Bhagvatula et al. (US 6,137,456) disclose an electronic display device for simultaneously displaying 2D and 3D images.

Hossack et al. (US 6,429,861 B1) disclose a method and apparatus for editing 3-D medical diagnostic ultrasound images.

Kameyama (US 6,198,484 B1) discloses a stereoscopic display system.

Fujii et al. (US 6,392,690 B1) disclose a three-dimensional display device.

Li (US 5,582,173) discloses a system and method for 3-D medical imaging using 2-D scan data.

Lemelson et al. (US 6,816,158 B1) disclose a three-dimensional display system.

Hamagishi et al. (US 5,751,479) disclose a three-dimensional display.

Sato et al. (US 5,907,312) disclose a three-dimensional image display device.

Gibas (US 5,675,377) discloses a true three-dimensional imaging and display system.

Rowe (US 4,063,233) discloses a three-dimensional display device.

### **Contact Information**

**10.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kanji Patel whose telephone number is (571) 272-7454. The examiner can normally be reached on Monday to Thursday from 8 a.m. to 6:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samir Ahmed can be reached on (571) 272-7413 The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/ Kanji Patel/

Primary Examiner, Art Unit 2624

**2. (Original) The 3-D image display unit according to claim 1;  
wherein said unit further includes a calculation part and a display control part;**

**wherein said calculation part calculates an accumulative intensity value that increases together with a time according to said 3-D intensity while said display control part, when said accumulative intensity is over a first threshold value, makes a predetermined display operation.**

**3. (Original) The 3-D image display unit according to claim 2;  
wherein said display operation includes display of a warning message.**

**4. (Original) The 3-D image display unit according to claim 2;  
wherein said display operation includes a parallax adjustment for said 3-D image so as to be reduced.**

**5. (Original) The 3-D image display unit according to claim 2;  
wherein said display operation includes forming of a 2-D image from said 3-D image to display said 2-D image instead of said 3-D image.**

**6. (Original) The 3-D image display unit according to claim 5;  
wherein said display operation includes resuming display of said 3-D image instead of said 2-D image in a predetermined time.**

**7. (Original) The 3-D image display unit according to claim 5;**

**wherein said calculation part calculates an accumulative intensity value that decreases together with a time during 2-D image display and said display operation, when said accumulative intensity is under a second threshold value, includes resuming display of said 3-D image instead of said 2-D image.**

**11. (Original) The 3-D image display unit according to claim 6;**

**wherein said predetermined time is included in said control information.**

**12. (Original) The 3-D image display unit according to claim 7;**

**wherein said second threshold value is included in said control information.**

**9. (Previously Presented) The 3-D image display unit according to claim 6;**

**wherein said unit further includes an input part for inputting an external signal that includes a request signal for switching display between 3-D image display and 2-D image display;**

**wherein said request signal is invalidated between when said 2-D image is displayed due to said display operation and when said resuming operation is made.**

**27. (Original) A 3-D image display unit for displaying a right-eye image and a left-eye image of a user separately;**

**wherein said unit includes:**

**3-D image forming means for forming a 3-D image from a plurality of images; and**

**warning display controlling means for forming a warning display for said 3-D image forming means;**

**wherein said warning display controlling means, in the case where the display time of said 3-D image exceeds a first predetermined time, forms said warning display for said 3-D image forming means.**

**28. (Currently Amended) The 3-D image display unit according to claim 27; wherein said warning display is made as a 3-D image.**

**29. (Currently Amended) The 3-D image display unit according to claim 27; wherein said warning display is made as a 3-D image and other displays are made as 2-D images.**

**30. (Currently Amended) The 3-D image display unit according to claim 27; wherein said warning display is made as a 3-D image that is displayed at a limiting place within which the user can recognize the image with difficulty.**

**31. (Currently Amended) The 3-D image display unit according to claim 27; wherein said unit further includes:**

**3-D image decoding means for decoding 3-D image format data; and separating means for separating said 3-D image data decoded by said 3-D image decoding means into right-eye image data and left-eye image data.**

**32. (Original) The 3-D image display unit according to claim 31;**

wherein the format of said 3-D image format data includes at least a single piece of 3-D image identification information for denoting whether or not object data is used to display a 3-D image, at least a single piece of control information that includes a first predetermined time, and at least a single piece of image data.

33. (Original) The 3-D image display unit according to claim 32;

wherein said 3-D image decoding means includes 3-D image control information analyzing means for analyzing 3-D image control information included in said 3-D image format data and image data decoding means for decoding said 3-D image data included in said 3-D image format data.

34. (Currently Amended) A 3-D image display unit for displaying a right-eye image and a left-eye image of a user separately;

wherein said unit includes:

3-D image forming means for forming a 3-D image from a plurality of images;

2-D image forming means for forming a 2-D image from said plurality of images;  
and

display means for displaying a 3-D image formed by said 3-D image forming means or 2-D image formed by said 2-D image forming means; and

wherein a power supply that includes at least the power of said display means is shut off automatically in the case where a 3-D image display time exceeds said first predetermined time; and



wherein said display means displays said 2-D image formed by said 2-D image forming means in the case where said shut-off power supply is restored before the 3-D image display off- time exceeds said second predetermined time after the power of said display means is shut off automatically.

35. (Original) The 3-D image display unit according to claim 34;

wherein said unit further includes 3-D image decoding means for decoding 3-D image format data and separating means for separating 3-D image data decoded by said 3-D image decoding means into right-eye image data and left-eye image data.

36. (Original) The 3-D image display unit according to claim 35; wherein the format of said 3-D image format data includes at least a single piece of 3-D image identification information for denoting whether or not object data is used to display a 3-D image, at least a single piece of control information that includes at least one of a first predetermined time and a second predetermined time, and a single piece of image data.

37. (Original) The 3-D image display unit according to claim 36; wherein said 3-D image decoding means includes 3-D image control information analyzing means for analyzing 3-D image control information included in said 3-D image format data and image data decoding means for decoding said 3-D image data included in said 3-D image format data.